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Miller

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(54) **PROGRAMMABLE SELF-OPERATING COMPACT DISK DUPLICATION SYSTEM USING STACKED SPINDLES**

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(57) **ABSTRACT**

A system for the duplication of binary data onto CD-R disks, the system including a copy unit, a host computer and computer software, the software being installed in the host computer to provide a user interface and to direct the transfer of data from the host computer to the copy unit, the copy unit including a set of multiple stacked recordable disk drives, a set of stacked disk spindles, each spindle affixed to a motorized tray, a transport tower, a printer, and a microprocessor. A robotic disk pickup head on the transport tower is connected to the transport tower with an elevator mechanism for lifting and transporting compact disks. The motorized trays move the disk spindles between a holding location and a transport axis, the transport axis being a vertical line that intersects the center of the robotic disk pickup head. The stacked recordable disk drive trays and printer also receive and eject disks along the transport axis, allowing for the robotic disk pickup head to transport disks from any disk spindle to any stacked recordable disk drive or the printer. The microprocessor concurrently directs the movement of the disk pickup head and the copying of data to the CD-R disks. The system allows for source data to be read from multiple master compact disks inserted in specified stacked recordable disk drive members to provide for random access copying from the multiple master compact disks.

18 Claims, 6 Drawing Sheets